

# ABB BALDOR RELIANCE III

---

## Customer information packet

### EJM3545

1HP, 3450RPM, 3PH, 60HZ, 56J, 3420M, TEFC, F1, N

Class - None

Division - Not Applicable

**Specifications**

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | TEFC                                                        |
| Frame                          | 56J                                                         |
| Frame Material                 | Steel                                                       |
| Frequency                      | 60.00 Hz                                                    |
| Haz Area Class and Group       | None                                                        |
| Haz Area Division              | Not Applicable                                              |
| Motor Letter Type              | Three Phase                                                 |
| Output @ Frequency             | 1.000 HP @ 60 HZ                                            |
| Phase                          | 3                                                           |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ                                            |
| Voltage @ Frequency            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                          |
| Agency Approvals               | CSA<br>CSA EEV<br>UR                                        |
| Ambient Temperature            | 40 °C                                                       |
| Auxiliary Box                  | NO AUXILLARY BOX                                            |
| Auxiliary Box Lead Termination | None                                                        |
| Base Indicator                 | No Mounting                                                 |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None                                                        |
| Current @ Voltage              | 3.200 A @ 230.0 V<br>4.200 A @ 208.0 V<br>1.600 A @ 460.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 77.0 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Face Code                | Standard                                                    |
| Front Shaft Indicator          | None                                                        |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | L          |
| Type         | AC         |
| Mech. spec.  | 34K508     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 34WG3226   |
| Layout       | 34LYK508   |
| Eff. date    | 10-29-2024 |
| CD Diagram   | CD0005     |
| Poles        | 02         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 11-12-2015 |

|                                      |                     |
|--------------------------------------|---------------------|
| <b>Heater Indicator</b>              | No Heater           |
| <b>High Voltage Full Load Amps</b>   | 1.6 a               |
| <b>Insulation Class</b>              | B                   |
| <b>Inverter Code</b>                 | Not Inverter        |
| <b>KVA Code</b>                      | L                   |
| <b>Lifting Lugs</b>                  | No Lifting Lugs     |
| <b>Locked Bearing Indicator</b>      | Locked Bearing      |
| <b>Motor Lead Exit</b>               | Ko Box              |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 18 AWG          |
| <b>Motor Lead Termination</b>        | Flying Leads        |
| <b>Motor Standards</b>               | NEMA                |
| <b>Motor Type</b>                    | 3420M               |
| <b>Mounting Arrangement</b>          | F1                  |
| <b>Number of Poles</b>               | 2                   |
| <b>Overall Length</b>                | 12.47 IN            |
| <b>Power Factor</b>                  | 82                  |
| <b>Product Family</b>                | General Purpose     |
| <b>Pulley End Bearing Type</b>       | Ball                |
| <b>Pulley Face Code</b>              | C-Face              |
| <b>Pulley Shaft Indicator</b>        | Ext Thread          |
| <b>Rodent Screen</b>                 | None                |
| <b>RoHS Status</b>                   | ROHS COMPLIANT      |
| <b>Service Factor</b>                | 1.40                |
| <b>Shaft Diameter</b>                | 0.625 IN            |
| <b>Shaft Extension Location</b>      | Pulley End          |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding  |
| <b>Shaft Rotation</b>                | Reversible          |
| <b>Shaft Slinger Indicator</b>       | No Slinger          |
| <b>Speed</b>                         | 3450 rpm            |
| <b>Speed Code</b>                    | Single Speed        |
| <b>Starting Method</b>               | Direct on line      |
| <b>Thermal Device - Bearing</b>      | None                |
| <b>Thermal Device - Winding</b>      | None                |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor |



|                   |      |
|-------------------|------|
| Winding Thermal 1 | None |
| Winding Thermal 2 | None |

**Nameplate**

| NP1259L      |               |      |     |      |   |    |    |   |  |
|--------------|---------------|------|-----|------|---|----|----|---|--|
| CAT.NO.      | EJM3545       |      |     |      |   |    |    |   |  |
| SPEC.        | 34K508-3226G2 |      |     |      |   |    |    |   |  |
| HP           | 1             |      |     |      |   |    |    |   |  |
| VOLTS        | 208-230/460   |      |     |      |   |    |    |   |  |
| AMP          | 3.4-3.2/1.6   |      |     |      |   |    |    |   |  |
| RPM          | 3450          |      |     |      |   |    |    |   |  |
| FRAME        | 56J           |      | HZ  | 60   |   |    | PH | 3 |  |
| SER.F.       | 1.40          | CODE | L   | DES  | B | CL | B  |   |  |
| NEMA-NOM-EFF | 77            | PF   | 82  |      |   |    |    |   |  |
| RATING       | 40C AMB-CONT  |      |     |      |   |    |    |   |  |
| CC           | 010A          |      |     |      |   |    |    |   |  |
| DE           | 6203          |      | ODE | 6203 |   |    |    |   |  |
| ENCL         | TEFC          | SN   |     |      |   |    |    |   |  |
|              | SFA 4.2-4/2   |      |     |      |   |    |    |   |  |

**AC Induction Motor Performance Data**

Record # 70920

Typical performance - not guaranteed values

| Winding: 34WG3226-R046 |  |              | Type: 3420M                              |  | Enclosure: TEFC |  |
|------------------------|--|--------------|------------------------------------------|--|-----------------|--|
| Nameplate Data         |  |              | 460 V, 60 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (HP)      |  | 1            | Full Load Torque                         |  | 1.51 LB-FT      |  |
| Volts                  |  | 208-230/460  | Start Configuration                      |  | direct on line  |  |
| Full Load Amps         |  | 3.4-3.2/1.6  | Breakdown Torque                         |  | 7.97 LB-FT      |  |
| R.P.M.                 |  | 3450         | Pull-up Torque                           |  | 6.2 LB-FT       |  |
| Hz                     |  | 60           | Locked-rotor Torque                      |  | 8.7 LB-FT       |  |
| NEMA Design Code       |  | B            | Starting Current                         |  | 14.5 A          |  |
| Service Factor (S.F.)  |  | 1.4          | No-load Current                          |  | 0.913 A         |  |
| NEMA Nom. Eff.         |  | 77           | Line-line Res. @ 25°C                    |  | 12.8 Ω          |  |
| Rating - Duty          |  | 40C AMB-CONT | Temp. Rise @ Rated Load                  |  | 55°C            |  |
| S.F. Amps              |  | 4.2-4/2      | Temp. Rise @ S.F. Load                   |  | 74°C            |  |
|                        |  |              | Locked-rotor Power Factor                |  | 63.6            |  |
|                        |  |              | Rotor inertia                            |  | 0.0186 LB-FT2   |  |

**Load Characteristics 460 V, 60 Hz, 1 HP**

| % of Rated Load | 25    | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|-------|------|------|------|------|------|------|
| Power Factor    | 41    | 59   | 72   | 81   | 85   | 89   | 87   |
| Efficiency      | 57.3  | 70.7 | 76.9 | 78.8 | 79.5 | 79.5 | 79.5 |
| Speed           | 3560  | 3536 | 3506 | 3475 | 3445 | 3406 | 3422 |
| Line amperes    | 0.967 | 1.09 | 1.27 | 1.47 | 1.7  | 1.99 | 1.87 |

ABB Motors and Mechanical Inc.

WINDING # 34WG3226

Typical performance - not guaranteed values.

1 HP 3 PH 60 HZ 3450 RPM 460 V 3420M

TORQUES (LB-FT): PO=7.97 PU=6.2 LR=8.7 LRA=14.5





